|          | Index of Claims |          |                     |          |           |          |           |          |                   |            |            |       |           | Application No.         |         |                        |                 |          |              |         |           |          |                   | Applicant(s)      |          |          |                 |             |          |                   |  |  |  |
|----------|-----------------|----------|---------------------|----------|-----------|----------|-----------|----------|-------------------|------------|------------|-------|-----------|-------------------------|---------|------------------------|-----------------|----------|--------------|---------|-----------|----------|-------------------|-------------------|----------|----------|-----------------|-------------|----------|-------------------|--|--|--|
|          |                 |          |                     |          |           |          |           |          |                   |            |            |       |           |                         | 10/6    | 393                    | 34              | R        |              |         |           |          | RUTHERFORD ET AL. |                   |          |          |                 |             |          |                   |  |  |  |
|          |                 |          |                     |          | Ш         |          |           | Ш        |                   |            |            |       |           |                         |         | 10/693,348<br>Examiner |                 |          |              |         |           |          |                   |                   |          | Art Unit |                 |             |          |                   |  |  |  |
|          |                 |          |                     |          |           |          |           |          |                   |            |            |       |           |                         | Ι,      | Vinod D. Patel         |                 |          |              |         |           |          |                   |                   | 3742     |          |                 |             |          |                   |  |  |  |
|          |                 |          |                     |          |           |          |           |          |                   |            |            |       |           |                         |         |                        |                 |          |              |         |           |          |                   |                   |          | 0172     |                 |             |          |                   |  |  |  |
|          | √ Rejected      |          |                     |          |           |          | ed        |          |                   | -          | (Throug    |       |           | gh numeral)<br>incelled |         |                        |                 | N Non-El |              |         | Elec      | cted     |                   | A                 | Appeal   |          |                 |             |          |                   |  |  |  |
|          | = Allowed       |          |                     |          |           |          |           | ÷        | Restricted        |            |            |       |           |                         |         | Interference O         |                 |          | Objected     |         |           |          |                   |                   |          |          |                 |             |          |                   |  |  |  |
| [        | Claim Dat       |          |                     |          |           |          | Date      |          |                   |            | Claim      |       |           |                         | Date    |                        |                 | )        |              |         | Claim     |          |                   | Date              |          |          | )               |             |          |                   |  |  |  |
|          | ai              | lat      |                     |          |           |          |           |          |                   |            |            |       | ıal       |                         |         |                        |                 |          |              |         |           |          | nal               |                   |          |          |                 |             |          |                   |  |  |  |
|          | Final           | Original |                     |          |           |          |           |          |                   |            |            | Final | Original  |                         |         |                        |                 |          |              |         |           | Final    | Original          |                   |          |          |                 |             |          |                   |  |  |  |
| ŀ        |                 | 1        | H                   |          |           |          |           |          | Н                 | -          | ┪┟         |       | 51        | $\dashv$                | +       | ╁                      | Н               |          | +            | +       | -         |          | 101               | H                 | +        | $\vdash$ | H               | $\dashv$    | $\dashv$ | +                 |  |  |  |
|          |                 | 2        |                     |          |           |          |           |          |                   |            | ] [        |       | 52<br>53  | $\Box$                  | T       | T                      |                 |          | ŀ            | 1       | Ϊ.        |          | 102<br>103        | П                 |          |          | П               |             | $\perp$  |                   |  |  |  |
| }        |                 | 4        | Н                   |          |           |          |           | Н        | H                 | +          | ┨╏         |       | 54        | +                       | +       | ╫                      | Н               | $\dashv$ | +            | +       | $\exists$ |          | 103               | Н                 | +        | +        | $\vdash$        | $\dashv$    |          | +                 |  |  |  |
| į        |                 | 5        |                     |          |           |          |           |          |                   |            | ] [        |       | 55        |                         |         |                        |                 |          | 1            |         |           |          | 105               |                   |          |          |                 | 1           |          |                   |  |  |  |
| ļ        |                 | 6        | Н                   |          |           |          |           | _        | $\mid \perp \mid$ | $\vdash$   | ┨╏         |       | 56        | 4                       | +       | ╀                      | $\sqcup$        |          | _            |         | 4         |          | 106<br>107        | Ш                 | - -      | ــــــ   | $\sqcup$        |             |          | 1                 |  |  |  |
| }        |                 | <u>7</u> | Н                   |          |           | _        |           |          | H                 | $\vdash$   | ┨╏         |       | 57<br>58  | +                       | +       | ╁╌                     | H               |          | -+           |         | -         |          | 107               | H                 | +        | ╁        | Н               | ᆉ           |          | ╁┤                |  |  |  |
| į        |                 | 9        |                     |          |           |          |           |          |                   |            | j [        |       | 59        |                         |         |                        |                 |          |              |         |           |          | 109               |                   |          |          |                 |             |          |                   |  |  |  |
| ļ        |                 | 10       |                     |          |           |          |           |          |                   |            | ] [        |       | 60        | 4                       | $\bot$  | <b> </b>               |                 |          | _            |         | _         |          | 110               | Ш                 | _        |          |                 |             | _ _      |                   |  |  |  |
| }        |                 | 11<br>12 | -                   |          |           |          |           |          |                   |            | ┪┟         |       | 61<br>62  | $\dashv$                | +       | -                      | $\vdash$        |          | -            | +       | -         |          | 111<br>112        |                   |          |          | H               | $\dashv$    |          | $\vdash$          |  |  |  |
| ŀ        |                 | 13       | Н                   |          |           |          |           | $\dashv$ | H                 |            | ┪┟         |       | 63        | $\dashv$                | +       | +                      | $\vdash$        |          | _            |         | -         |          | 113               | Н                 | +        | +-       | H               | ᅥ           |          | $\vdash$          |  |  |  |
| ]        |                 | 14       |                     |          |           |          |           |          |                   |            | ] [        |       | 64        |                         |         |                        |                 |          | ightharpoons |         | ]         |          | 114               |                   |          |          |                 |             |          |                   |  |  |  |
| <u> </u> |                 | 15       | Н                   | _        |           |          |           |          |                   |            | -          |       | 65        | 4                       | 4       | -                      | Ш               |          | 4            | 4       | 4 .       |          | 115               | Ш                 | _        | <u> </u> |                 | _           |          | $\bot$            |  |  |  |
| }        |                 | 16<br>17 | 1                   | _        | _         |          |           | -        | $\vdash$          | -          | ┨╏         |       | 66<br>67  | $\dashv$                | +       | +                      | $\vdash \vdash$ | $\dashv$ | +            | +       | -         |          | 116<br>117        | Н                 |          | +        | $\vdash$        |             |          | Н                 |  |  |  |
| -        |                 | 18       | H                   |          |           |          |           | Н        | H                 |            | 1          |       | 68        | $\dashv$                | +       | +                      | $\vdash$        |          | $\dashv$     |         | 1         |          | 118               | H                 |          |          | $\Box$          |             | +        | $\dagger \exists$ |  |  |  |
| Ĭ        |                 | 19       |                     |          |           |          |           |          |                   |            | ] [        |       | 69        |                         |         |                        |                 |          |              |         | ]         |          | 119               |                   |          |          |                 |             |          |                   |  |  |  |
| -        |                 | 20<br>21 | $\vdash$            | _        |           |          |           |          | Н                 | _          | ┥ ┝        |       | 70<br>-71 | _                       |         |                        | $\sqcup$        | $\dashv$ | +            | +       | 4         |          | 120<br>121        | $\vdash$          | _        | -        |                 |             |          | $\vdash$          |  |  |  |
| -        |                 | 22       | Н                   |          |           |          |           |          | $\dashv$          |            | ┪┟         |       | 72        | $\dashv$                | +       | +                      | H               | $\dashv$ | $\dashv$     | +       | -         |          | 122               | Н                 | $\dashv$ | +-       | $\vdash$        |             |          | +                 |  |  |  |
|          |                 | 23       |                     |          |           |          |           |          |                   |            | 1          |       | 73        | $\dashv$                | +       | $\dagger$              | $\Box$          | $\dashv$ | 十            | $\top$  | ┪ ┆       |          | 123               |                   | +        | ╁        | H               | $\dashv$    | 十        | $\vdash$          |  |  |  |
|          |                 | 24       |                     |          |           |          |           |          |                   |            | ] [        |       | 74        |                         | Ţ       |                        |                 |          | $\Box$       | $\Box$  |           |          | 124               |                   |          |          | П               |             |          |                   |  |  |  |
| -        |                 | 25<br>26 |                     |          |           |          |           | -        | $\vdash$          | -          | ┥┟         |       | 75<br>76  | +                       | +       | +                      | $\vdash$        | -        | -            | +       | -         |          | 125<br>126        | $\vdash$          |          | ╁        | $\vdash$        |             | +        | +                 |  |  |  |
| }        | -               | 27       |                     |          | -         | _        | —         | $\dashv$ | $\dashv$          |            | ┪┟         |       | 77        | +                       | +       | +                      |                 | $\dashv$ | $\dashv$     | +       |           |          | 127               | $\vdash$          | +        | 1        | H               | $\dashv$    | +        | Н                 |  |  |  |
|          |                 | 28       |                     |          |           |          |           |          |                   |            | ] [        |       | 78        | 丄                       |         |                        |                 |          | 士            | 士       | ]         |          | 128               |                   |          |          |                 |             |          |                   |  |  |  |
| <u> </u> |                 | 29       | 7                   | 4        | _         |          | Ш         | _        | $\sqcup$          | _          | 4          |       | 79        | _                       | 1       | $\perp$                | <b> </b>        | _        | $\dashv$     | $\perp$ | 4         |          | 129               |                   | 1        | 1        | Ш               | $\dashv$    |          | $\square$         |  |  |  |
|          |                 | 30<br>31 | 1                   |          |           |          | $\vdash$  |          | $\vdash$          |            | ┨╏         |       | 80<br>81  | $\dashv$                | +       | +-                     | $\vdash$        | $\dashv$ | $\dashv$     | ╬       | $\dashv$  |          | 130<br>131        | $\vdash$          | +        | ╁        | Н               | $\dashv$    | +        | H                 |  |  |  |
| į        |                 | 32       | V                   |          |           |          |           |          |                   | $\top$     | j t        |       | 82        | $\dashv$                | +       |                        |                 | _        | $\top$       | +       | _         |          | 132               |                   | +-       | +        |                 | _           | +        | Н                 |  |  |  |
| [        |                 | 33       | 4                   |          |           |          |           |          |                   |            | ] [        |       | 83        | $\Box$                  | $\perp$ |                        |                 | $\Box$   | $\Box$       | $\perp$ |           |          | 133               |                   |          |          | П               |             | $\perp$  | П                 |  |  |  |
| F        |                 | 34<br>35 | V V                 | $\dashv$ | -         |          |           |          | $\vdash$          | -          | ┨┞         |       | 84<br>85  | +                       | +       | +-                     |                 |          | -            | +       | -         |          | 134<br>135        | $\vdash \vdash$   | +        | ╀        | Н               | $\dashv$    | +        | $\vdash$          |  |  |  |
| f        | _               | 36       | V                   | -        | $\dashv$  |          | Н         |          | $\dashv$          |            | ┪┟         |       | 86        | $\dashv$                | +       | +                      |                 | -        | ┰            | +       | ┥┊        | <b></b>  | 136               | H                 | +        | +        | $\vdash$        | $\dashv$    | +        | Н                 |  |  |  |
|          |                 | 37       | 1                   |          |           |          |           |          |                   |            | ] [        |       | 87        |                         |         |                        |                 |          |              |         | ]         |          | 137               |                   |          |          |                 | 二           |          |                   |  |  |  |
|          |                 | 38       | ٧                   | _        |           |          |           |          |                   | _          | <b>↓</b> [ |       | 88        | $-\Gamma$               | $\perp$ | 1                      | oxdot           | _[       | $\bot$       | 4       | 4         | $\Box$   | 138               |                   | _        | L        | $\sqcup$        | 4           |          | П                 |  |  |  |
| -        |                 | 39<br>40 | v<br>v              |          | $\dashv$  | _        |           | $\vdash$ |                   | +          | ┨          |       | 89<br>90  | $\dashv$                | +       | +                      | $\vdash \vdash$ | $\dashv$ | +            | +       | +         | $\vdash$ | 139<br>140        | $\vdash$          | +        | +        | $\vdash \vdash$ | $\dashv$    | +        | $\vdash$          |  |  |  |
| F        |                 | 41       | Ħ                   |          |           | -        | H         | $\dashv$ |                   | $\dashv$   | ┪ ┞        |       | 91        | $\dashv$                | +       | +                      | $\vdash \vdash$ | +        | +            | +       | ┤ ┆       |          | 141               | $\mid \cdot \mid$ | +        | $\vdash$ |                 | $\dashv$    | +        | +                 |  |  |  |
| Ţ        |                 | 42       |                     |          |           |          |           |          |                   |            | ] [        |       | 92        |                         | $\perp$ |                        |                 | $\Box$   | ightharpoons | $\perp$ | ]         |          | 142               |                   | 丄        |          | 口               | $\sqsupset$ |          | $\square$         |  |  |  |
| -        |                 | 43       | $\square$           | 4        | $\dashv$  | Щ        | $\square$ | $\dashv$ |                   | $\perp$    | <b>↓</b>   |       | 93        | +                       | +       | ┼                      | $\vdash \vdash$ | 4        | +            | +       | 4         |          | 143               | $\vdash \vdash$   | +        | ┼        | $\vdash \vdash$ | 4           | +        | $\sqcup$          |  |  |  |
| }        |                 | 44<br>45 | ${oldsymbol{dash}}$ | -        | $\dashv$  | $\vdash$ | Н         | $\dashv$ |                   | +          | ┤├         |       | 94<br>95  | +                       | +       | +                      | $\vdash$        | $\dashv$ | +            | +       | $\dashv$  |          | 144<br>145        | $\vdash \vdash$   | +        | +        | $\vdash$        | $\dashv$    | +        | +                 |  |  |  |
| ŀ        |                 | 46       |                     |          | $\exists$ |          |           |          |                   |            | <u> </u>   |       | 96        | 土                       | 士       |                        |                 |          | 士            | $\perp$ | ]         |          | 146               |                   | 土        |          |                 |             | 丁        |                   |  |  |  |
|          |                 | 47       |                     |          | $\Box$    |          |           |          | $\Box$            | $\Box\Box$ | ] [        |       | 97        | T                       | $\perp$ | $\Box$                 |                 | $\Box$   | $\perp$      | $\perp$ |           |          | 147               | $\Box$            |          |          |                 | $\exists$   | $\perp$  |                   |  |  |  |

99 100

49 50

149 150